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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,139	04/23/2001	Yoshiyuki Nagai	862.C2205	1616

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EXAMINER	
LANDAU, MATTHEW C	
ART UNIT	PAPER NUMBER
2815	

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/839,139	Applicant(s) NAGAI ET AL.	
	Examin r Matthew Landau	Art Unit 2815	

-- The MAILING DATE of this communication app ars on th cover sheet with th correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, and 3-24* is/are pending in the application.

4a) Of the above claim(s) *17-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-16,23, and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. This application contains claims 17-22 drawn to an invention nonelected with traverse in Paper No. 4. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 6, 9, and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakabayashi et al. (US Pat. 5,373,515, hereinafter Wak '515).

In regards to claim 1, Figure 1 of Wak '515 discloses a laser oscillation apparatus comprising wavelength change means (8,9,10) for driving a wavelength selection element 2 and changing an oscillation wavelength of a laser beam to a target value (column 2, lines 6-22); and a calculating means 9 for calculating a driving amount of the wavelength selection element (column 4, lines 1-16). The intended use limitation "on the basis of the target value and a drift amount of the oscillation wavelength generated immediately after oscillation starts, wherein said wavelength, wherein the wavelength change means drives the wavelength selection element on the basis of the calculated driving amount and the calculated drift amount" does not structurally distinguish the claimed invention over Wak '515.

In regards to claim 4, the intended use limitation beginning "wherein thresholds are set...." does not structurally distinguish the claimed invention over Wak '515.

In regards to claim 6, Figure 1 of Wak '515 discloses a wavelength measuring means 8 for measuring the oscillation wavelength of the laser beam.

In regards to claim 9, the intended use limitation beginning "wherein whether the measured oscillation wavelength...." does not structurally distinguish the claimed invention over Wak '515.

In regards to claim 10, the intended use limitation beginning "wherein output of the laser..." does not structurally distinguish the claimed invention over Wak '515.

In regards to claim 11, the intended use limitation beginning "wherein output of the laser..." does not structurally distinguish the claimed invention over Wak '515.

In regards to claim 12, the intended use limitation beginning "wherein no test laser...." does not structurally distinguish the claimed invention over Wak '515.

In regards to claim 13, Wak '515 discloses the wavelength selection element 2 includes a grating (column 4, lines 22-26).

In regards to claim 14, Wak '515 discloses the laser beam includes an excimer laser beam (column 1, lines 9-14).

4. Claims 1, 6, 7, 8, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinonaga et al. (US Pat. 5,838,426, hereinafter Shinonaga).

In regards to claim 1, Figure 1 of Shinonaga discloses a laser oscillation apparatus comprising a wavelength change means 32 for driving a wavelength selection element 29 and

changing an oscillation wavelength of a laser beam to a target value; and a calculation means (wavelength detector) for calculating a driving amount of the wavelength selection element (column 6, lines 51-56). The intended use limitation "on the basis of the target value and a drift amount of the oscillation wavelength generated immediately after oscillation starts, wherein said wavelength, wherein the wavelength change means drives the wavelength selection element on the basis of the calculated driving amount and the calculated drift amount" does not structurally distinguish the claimed invention over Shinonaga.

In regards to claim 6, Figure 1 of Shinonaga discloses a wavelength measurement means for measuring the oscillation wavelength of the laser beam (column 6, lines 51-56).

In regards to claim 7, Figure 1 of Shinonaga discloses an internal environment measurement means 20 for measuring an internal environment of said wavelength measurement means. The intended use limitation "said wavelength measurement means is corrected based on the measure internal environment of said wavelength measurement means" does not structurally distinguish the claimed invention over Shinonaga.

In regards to claim 8, Figure 1 of Shinonaga discloses the internal environment of said wavelength change means includes a temperature.

In regards to claim 15, Figure 1 of Shinonaga discloses an exposure apparatus using a laser oscillation apparatus as a light source, wherein the laser oscillation apparatus comprises a wavelength change means 32 for driving a wavelength selection element 29 and changing an oscillation wavelength of a laser beam to a target value; and a calculation means (wavelength detector) for calculating a driving amount of the wavelength selection element (column 6, lines 51-56). The intended use limitation "on the basis of the target value and a drift amount of the

oscillation wavelength generated immediately after oscillation starts, wherein said wavelength, wherein the wavelength change means drives the wavelength selection element on the basis of the calculated driving amount and the calculated drift amount" does not structurally distinguish the claimed invention over Shinonaga.

In regards to claim 16, the intended use limitation beginning "wherein the oscillation wavelength..." does not structurally distinguish the claimed invention over Shinonaga.

5. Claims 1, 3, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakabayashi et al. (US Pat. 5,142,543, hereinafter Wak '543).

In regards to claim 1, Figure 1 of Wak '543 discloses a laser oscillation apparatus comprising a wavelength change means 300 for driving a wavelength selection element (101,102) and changing an oscillation wavelength of a laser beam to a target value; and a calculation means 302 for calculating a driving amount of the wavelength selection element. The intended use limitation "on the basis of the target value and a drift amount of the oscillation wavelength generated immediately after oscillation starts, wherein said wavelength, wherein the wavelength change means drives the wavelength selection element on the basis of the calculated driving amount and the calculated drift amount" does not structurally distinguish the claimed invention over Wak '543.

In regards to claim 3, the intended use limitation "wherein said calculation means calculates the drift amount on the basis of...." does not structurally distinguish the claimed invention over Wak '543.

In regards to claim 4, the intended use limitation beginning "wherein thresholds are set...." does not structurally distinguish the claimed invention over Wak '543.

In regards to claim 5, Figure 1 of Wak '543 discloses a shutter 108. The intended use limitation beginning "wherein a shutter is closed..." does not structurally distinguish the claimed invention over Wak '543.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wak '543 in view of Tuganov et al. (US Pat. 6,434,173, hereinafter Tuganov).

In regards to claim 23, the difference between Wak '543 and the claimed invention is the exposure apparatus comprises a display, a network interface, and a computer network for executing network software. Figures 1 and 2 of Tuganov disclose a display 200, a network interface 102, and a computer network 120 for executing network software. Since network 120 is connected to computers (114,116,118), it is considered to be a computer network. In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of Wak '543 by including the display, network interface, and computer network of Tuganov. The ordinary artisan would have been motivated to modify Wak '543 in the manner described above for the purpose of automation and decentralized control of

the exposure apparatus. Note the intended use limitation "maintenance information of the exposure apparatus can be communicated via the computer network" does not structurally distinguish the claimed invention over the prior art.

In regards to claim 24, the intended use limitation beginning "characterized in that the network software..." does not structurally distinguish the claimed invention over the prior art.

Response to Arguments

8. Applicant's arguments filed April 17, 2003 have been fully considered but they are not persuasive.

In response to applicant's arguments on page 23 that "these patents do not teach or suggest the salient features of Applicants' present invention as recited in the independent claims ...", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (703) 305-4396.

The examiner can normally be reached from 8:00 AM-4: 30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Matthew C. Landau

Examiner

June 29, 2003